

DESCRIPTIONS OF ICHNEUMONIDÆ, CHIEFLY FROM THE PACIFIC SLOPE OF THE UNITED STATES AND BRITISH NORTH AMERICA.¹

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Ichneumon solitus, Cresson (Trans. Am. Ent. Soc., vi. 144).

♀.—Black, immaculate; mesothorax, scutellum and abdomen shining, the latter rather strongly tinged with blue or purple; antennæ rather stout, strongly involute, with a pale annulus beyond middle; third joint more than twice longer than broad, and conspicuously longer than the fourth; scutellum flat, polished, and nearly destitute of punctures; metathorax broadly and deeply excavated behind, central area large pentangular, rounded laterally and emarginate posteriorly; wings uniformly pale fuliginous; femora robust, anterior tibiæ pale in front; posterior coxæ nude; abdomen oblong ovate, finely, closely, and evenly punctured, apex polished; apex of first segment broadly dilated and punctured; gastrocæli small and deep. Length .30–.42 inch.

Hab. Lake Lahache, B. Col. (Crotch); Colorado (Smith).

Ichneumon odiosus, Cresson (Trans. Am. Ent. Soc., vi. 145).

♂.—Black; anterior orbits, dilated on sides of face, short line in front of tegulæ, dot beneath, and tips of anterior femora and the four anterior tibiæ in front, white; scutellum convex, punctured; metathorax with strongly defined elevated lines, central area rather large, subreniform; wings faintly dusky, nervures and stigma black; legs slender; abdomen slightly tinged with blue, closely and strongly punctured, strongly constricted at base of segments three and four; apex of first segment moderately broad, raised medially and punctured; gastrocæli small and deep. Length .56 inch.

Hab. California (Behrens).

¹ In the early part of the year 1877 this paper was presented to the California Academy of Natural Sciences for publication in its Proceedings, and accepted with the assurance that it would be published in the volume for that year; with this understanding, the species of *Ichneumon*, *Hoplismenus*, *Amblyteles*, *Trogus*, and *Platylabus* herein described, were referred to in my paper on the Subfamily Ichneumonides (Trans. Am. Ent. Soc., vi. p. 129), as published in the Proc. Cal. Acad. Nat. Sci., 1877; but after a delay of over a year, the Academy finding it impossible to publish the paper in any reasonable time, the same was withdrawn.

Ichneumon neutralis, Cresson (Trans. Am. Ent. Soc., vi. 149).

♂.—Black; anterior orbits, broad on face, lower posterior orbits, dot on each side of clypeus, spot at base of mandibles, palpi, line before tegulæ, short one beneath, dot on tegulæ anteriorly, scutellum, anterior femora in front, four anterior tibiæ in front and intermediate knees, all white; scutellum subconvex, sparsely punctured; metathorax transversely rugose, posterior face oblique, bounded above by a sharp carina, central area of moderate size, rounded anteriorly, and truncate posteriorly; wings smoky hyaline, nervures and stigma black; legs moderately slender; abdomen faintly tinged with blue, closely punctured, somewhat shining; apex of first segment not broadly dilated; gastrocæli deep. Length .56 inch.

Hab. California (H. Edwards). Closely allied to *subcyaneus*, but is distinguished from that species by the posterior legs being entirely black.

Ichneumon salvus, Cresson (Trans. Am. Ent. Soc., vi. 166).

♂.—Black; face, clypeus, mandibles, palpi, scape beneath, upper margins of prothorax, tegulæ, short line beneath, scutellum and post scutellum, yellow; mesothorax with two longitudinal, dull, ferruginous lines dilated anteriorly; scutellum convex, polished, very abrupt at sides; metathorax entirely black, obliquely truncate behind, with large transversely quadrate central area; wings pale yellowish hyaline, stigma fulvous; legs yellowish, femora ferruginous, with coxæ more or less black above, tips of posterior tibiæ dusky; abdomen opaque, densely punctured, apex of first segment, and the second and third entirely, except narrow black posterior margin, yellow; fourth segment ferruginous, black at tip, remainder black; apex of first segment broad, coarsely longitudinally rugose and pyramidal in profile; gastrocæli very large and deep; apical segments almost smooth, and shining; venter black, segments 2-4 yellowish ferruginous. Length .66 inch.

Hab. Vancouver's Island (H. Edwards).

Ichneumon indemnus, Cresson (Trans. Am. Ent. Soc., vi. 172).

♀.—Long, cylindrical, ferruginous; suture at base of antennæ, middle of vertex, spot inclosing ocelli, apex of antennæ, sutures of thorax more or less, tips of posterior femora and of the tibiæ, apex of second, third, and fourth abdominal segments and the

fifth and following segments entirely, black; head rather narrow, buccate; antennæ slender, third joint long and cylindrical, as long as first and second together, and nearly twice as long as the fourth; scutellum convex, yellow; metathorax truncate behind, central area large and oblong subquadrate; wings smoky hyaline; legs slender; abdomen long, narrow, linear, subcompressed at tip; first segment subquadrate at tip, slightly narrowed to base of second segment, so that the sides are somewhat rounded, lateral margins depressed, the raised middle being indistinctly aciculated; base of second segment narrowed, depressed, faintly longitudinally sculptured; gastrocæli subobsolete; last ventral segment long, narrow, not retracted. Length .42 inch.

Hab. British Columbia (Croteh).

Ichneumon purpuripennis, Cresson (Trans. Am. Ent. Soc., vi. 175).

♀.—Ferruginous; head buccate; antennæ robust, with short, stout joints, black, the basal joints generally ferruginous, sometimes entirely black, apex more or less involute; scutellum flat, shining, sparsely punctured; metathorax opaque, finely rugosely punctured, rather deeply excavated behind, central area subquadrate; wings fuscous, with a more or less strong violaceous reflection, stigma varies from black to fulvous; legs subrobust, posterior tarsi sometimes fuscous; abdomen broadly fusiform, finely and closely punctured, becoming gradually less distinct beyond third segment; apex of first segment broadly dilated and longitudinally aciculated; gastrocæli small and rather deep; basal margin of third or fourth segment, or both, sometimes narrowly black. Length .50 inch.

Hab. California (Behrens, H. Edwards, Stretch).

Ichneumon cupitus, Cresson (Trans. Am. Ent. Soc., vi. 175).

♂.—Ferruginous; antennæ except scape, sometimes occiput and middle of vertex, and sutures of thorax more or less black; face, scutellum and anterior legs in front pale ferruginous or yellowish; scutellum subconvex, shining, and sparsely punctured; central area of metathorax quadrate; wings fuliginous, violaceous; abdomen opaque, closely and finely punctured; apex of first segment rather narrow, shining, minutely aciculated; gastrocæli large and deep. Length .60 inch.

Hab. California (Behrens). May be the ♂ of *purpuripennis*.

Ichneumon crudosus, Cresson (Trans. Am. Ent. Soc., vi. 175).

♂.—Head, antennæ, and thorax black; face yellow; mandibles, palpi, upper anterior orbits, scape, mesothorax except central black stripe, scutellum, metathorax above each side of central area and tegulæ ferruginous; scutellum convex, polished; central area of metathorax small, subrotund; wings violaceous black; legs and abdomen entirely ferruginous, the latter narrow, opaque, densely and finely punctured; apex of first segment narrow, aciculated; gastrocæli large and deep. Length .70 inch.

Hab. California (H. Edwards).

Ichneumon compar, Cresson (Trans. Am. Ent. Soc., vi. 175).

♀.—Ferruginous; head strongly buccate, anterior orbits and palpi yellowish; antennæ with short stout joints, apex black; collar yellow above; scutellum flat, shining, sparsely punctured; metathorax strongly punctured, posterior face deeply excavated, bounded above by a sharp carina, central area quadrate; sutures of thorax sometimes more or less broadly margined with black, in one specimen the pleura beneath is almost entirely black; wings yellowish fuscous, stigma honey-yellow; femora robust, sometimes the posterior tibiæ is more or less yellowish at base, and the anterior legs tinged with yellow in front; abdomen fusiform, very closely and finely punctured, smooth at apex; apex of first segment broadly dilated and longitudinally aciculated; gastrocæli rather large and deep. Length .55 inch.

Hab. Vancouver's Island (H. Edwards). Closely allied to *purpuripennis*, which has stouter antennæ, with shorter basal joints, etc.

Ichneumon difficilis, Cresson (Trans. Am. Ent. Soc., vi. 176).

♂.—Head black, upper anterior orbits, face, clypeus, mandibles, except tips, palpi, and scape beneath yellow; thorax black, upper margin of prothorax, large furcate mark on mesothorax, scutellum, and metathorax above more or less ferruginous; tegulæ, short line beneath and sometimes the scutellum, yellow; scutellum subconvex, polished; wings fuscous, stigma fulvous; legs ferruginous, coxæ and tips of posterior tibiæ black; abdomen ferruginous, densely punctured, opaque, base of segments three, four, and five, more or less black: apex of first segment coarsely aciculated; gastrocæli large and very deep. Length .56 inch.

Hab. California (Behrens).

Var.? Pale ferruginous; thorax same as the above, with the scutellum yellow; *four anterior coxæ yellow*; apex of first abdominal segment nearly smooth, scarcely aciculated; black bands at base of segments 3—5 narrow.

Hab. Vancouver's Island (H. Edwards).

Ichneumon nuncius, Cresson (Trans. Am. Ent. Soc., vi. 176).

♂.—Black; face, anterior orbits, lower posterior orbits, clypeus, mandibles except tips, scape beneath, upper margin of prothorax, tegulae, short line beneath, scutellum, post-scutellum, and posterior face of metathorax more or less pale yellow; mesothorax with two pale lines or a spot on the disk; scutellum convex, polished; elevated lines of metathorax sharply defined, posterior face obliquely truncate, central area quadrate; wings hyaline, dusky at tips, stigma fulvous; legs ferruginous, four anterior coxæ and trochanters yellow, their femora, tibiae, and tarsi yellowish in front; posterior coxæ, trochanters and tips of their tibiae black; apex of their coxæ beneath, and tips of their tarsi yellowish; abdomen ferruginous, first segment black, with the apex ferruginous, aciculated; gastrocæli rather large and moderately deep. Length .55 inch.

Hab. California (H. Edwards).

Ichneumon sequax, Cresson (Trans. Am. Ent. Soc., vi. 181).

♀.—Ferruginous, shining, finely, rather feebly punctured; anterior orbits pale; antennæ long, slender, black, scape ferruginous, third joint long, cylindrical, longer than fourth, apex of flagellum attenuated; scutellum broad, flattened, broadly truncate at tip, the lateral region, basal excavation and carinae, pleura except lateral spot, sides of prothorax more or less, and base and flanks of metathorax black; metathorax truncate behind, lateral angles prominent, central area large, quadrate; wings hyaline, faintly dusky, stigma black; legs slender, entirely ferruginous; abdomen broadly fusiform, depressed, polished at tip; apex of first segment broad, and finely aciculated; gastrocæli oblique and deep. Length .50 inch.

Hab. Vancouver's Island (H. Edwards).

Ichneumon hiemalis, Cresson (Trans. Am. Ent. Soc., vi. 181).

♀.—Small, densely sculptured, ferruginous, space behind antennæ, apex of flagellum, pleura and metathorax black; antennæ yellowish-ferruginous, rather long, slightly thickened towards tip,

joints short, third about twice longer than broad and subequal with fourth; scutellum flattened; metathorax obliquely truncate behind, central area quadrate; wings dusky, stigma yellow; legs slender, four posterior coxæ black, ferruginous at tips; abdomen fusiform, depressed, densely coarsely sculptured, smooth and shining at apex; first segment rather broadly dilated at tip, and coarsely longitudinally sculptured, gastrocæli obliquely linear. Length .30 inch.

Hab. Alientian Islands (H. Edwards).

Ichneumon cestus, Cresson (Trans. Am. Ent. Soc., vi. 182).

♀.—Pale ferruginous, opaque, densely and finely punctured; antennæ slender, third joint long, cylindrical, much longer than fourth, apical joints blackish; anterior angle of prothorax, basal excavation of scutellum, basal suture of metathorax, irregular patch on disk of second abdominal segment and broad band at base of third segment, black; scutellum depressed, polished, punctured, sides abrupt, apex rounded; metathorax coarsely punctured, excavated behind, with spiniform lateral angles, central area quadrate, not well defined; wings yellowish hyaline, a fuscous cloud along base of first submarginal cell, stigma fulvous; tips of posterior tibiæ slightly dusky, their coxæ beneath with a small pubescent patch near tip; abdomen fusiform, apex of first segment broad and finely scabrous; gastrocæli transversely linear, rather deep. Length 40 inch.

Hab. Vancouver's Island (H. Edwards). Easily recognized by the broad black band at base of third abdominal segment, and by the subfasciate wings.

Ichneumon russatus, Cresson (Trans. Am. Ent. Soc., vi. 183).

♀.—Ferruginous; head and mesothorax sparsely punctured; head buccate, middle of face prominent; antennæ short, robust, strongly involute, scape subglobose, third joint nearly subquadrate, and equal with fourth, the joints towards apex thickened, obfuscated; scutellum flat, polished, with a few scattered punctures; metathorax deeply excavated behind, with rather prominent subspiniform lateral angles, central area subquadrate; sutures of prothorax beneath, suture at base of scutellum, as well as its lateral region, and lower margin of metathorax, black; wings fusco-hyaline; abdomen fusiform, very densely and minutely sculptured on second and third segments, apical segments smooth and

shining; apex of first segment gradually dilated, rather coarsely aciculated, depressed, not at all raised medially; gastrocæli sub-obsolete; a fuscous stain on second segment (which may be accidental). Length .40 inch.

Hab. Vancouver's Island (H. Edwards).

Ichneumon semissis, Cresson (Trans. Am. Ent. Soc., vi. 183).

♀.—Ferruginous, opaque; head broad, sub-buccate; antennæ moderately slender, dusky at tips, third joint more than twice longer than broad, and a little longer than fourth; anterior angle of mesothorax and basal and lateral regions of scutellum black; scutellum subconvex, shining, rounded at tip; metathorax roughly punctured, rather deeply excavated behind, with prominent obtuse lateral angles, central area quadrate; wings pale yellowish-fuscous; abdomen fusiform, rather strongly punctured on second segment, apical segments gradually smoother and shining; apex of first segment gradually, rather broadly dilated and feebly aciculated; gastrocæli shallow, not well marked. Length .40 inch.

Hab. Mohave Desert, California (Crotch).

Ichneumon petulcus, Cresson (Trans. Am. Ent. Soc., vi. 185).

♀.—Small, robust, ferruginous, shining; head strongly buccate, face short and prominent on middle, polished; antennæ short, robust, with short close-set joints, scape globose; third joint nearly quadrate, equal with third, flagellum obfuscated; front behind antennæ deeply excavated, occiput deeply emarginate; mesothorax subtrilobate; scutellum flat, polished; metathorax deeply excavated behind, lateral angles rather prominent, central area subquadrate; lateral region of scutellum, spot on sides of prothorax, anterior margin of pleura and lower margin of metathorax, black; wings hyaline, faintly tinged with yellowish; legs robust; abdomen fusiform, finely punctured, shining at apex; first segment gradually dilated at tip and depressed, indistinctly sculptured; gastrocæli obsolete. Length .26 inch.

Hab. San Barbara, California (Crotch).

Hoplismenus pacificus, Cresson (Trans. Am. Ent. Soc., vi. 186).

♀.—Black, opaque; mandibles and palpi brownish; clypeus sometimes more or less ferruginous; antennæ slender, with a yellowish-white annulus, scape ferruginous beneath; scutellum strongly gibbous, convex, or subpyramidal, shining; metathorax coarsely, transversely rugose, smoother on each side at base, trun-

cate behind, lateral angles very prominent, obtuse, central area quadrate, sometimes longitudinally rugose; wings uniformly fuliginous, with a strong violaceous reflection, nervures and stigma black; legs, with coxæ, ferruginous, sometimes brownish-ferruginous, posterior tibiæ fuscous, the base often more or less ferruginous, their tarsi whitish with basal joint almost entirely fuscous; abdomen broad, ovate, depressed, shining at tip, second and third segments closely and strongly punctured, the punctures confluent at base of second, gastrocæli large and deep; apex of first segment broad, scabrous; venter shining. Length .70 inch.

♂.—More slender: sides of face yellow; clypeus, labrum, and scape beneath ferruginous, flagellum entirely black; legs pale ferruginous. Length .55 inch.

Hab. Vancouver's Island (H. Edwards).

Amblyteles mormonus, Cresson (Trans. Am. Ent. Soc., vi. 190).

♀.—Deep black; four anterior legs, except coxæ and trochanters, and posterior femora ferruginous; antennæ long, slender, basal joints of flagellum long and cylindrical; head small, cheeks flat; thorax robust, strongly punctured; scutellum depressed; metathorax obliquely truncate behind, central area transverse; tegulæ fuscous; wings fuscous, rather paler at tips; legs subrobust, posterior tibiæ and tarsi unusually robust, the latter short; abdomen broadly fusiform, opaque at base, shining at tip, apex of first segment broad, aciculated; second and third segments closely and strongly punctured, longitudinally rugose at base of second, gastrocæli small and deep; last ventral segment scarcely retracted. Length .45 inch.

Hab. Great Salt Lake, Utah.

Amblyteles hiulcus, Cresson (Trans. Am. Ent. Soc., vi. 194).

♀.—Long, narrow, cylindrical, shining ferruginous; sutures of thorax, apex of posterior tibiæ and sometimes of their femora, and basal margins of abdominal segments 3-5, black; head narrow, buccate; antennæ long, slender, curled, and fuscous at tip, third joint at least three times longer than broad, cylindrical, much longer than fourth; mesothorax strongly punctured, convex; scutellum subconvex, polished; metathorax obliquely truncate behind; wings dusky-hyaline, stigma yellow; legs slender; abdomen smooth and polished, long, narrow, subcompressed at tip; apex of first segment narrow, with almost parallel sides,

depressed above and indistinctly sculptured; base of second slightly narrowed, depressed, very finely and sparsely punctured, gastrocæli longitudinal, subobsolete; last ventral segment long, narrow, not retracted. Length .48 inch.

Hab. Lake Lahache, British Columbia (Crotch).

Trogus Edwardsii, Cresson (Trans. Am. Ent. Soc., vi. 195).

♂.—Black; head transversely subtriangular, not at all buccate; face, clypeus, labrum, mandibles, palpi, narrow upper anterior orbits, line on posterior orbits, scape beneath, and most of flagellum beneath, two spots in front of mesothorax, scutellum, elevated disk of metathorax and tegulae, ferruginous; scutellum acutely pyramidal; metathorax with two sharp longitudinal ridges behind, between which the surface is coarsely and transversely rugose; wings blackish-fuliginous, violaceous; legs slender, yellowish-ferruginous, four anterior coxae at base and posterior pair entirely black; abdomen depressed, longitudinally aciculated, the segments strongly constricted at base, especially at sides, ferruginous, a black spot on disk of second and following segments, becoming gradually larger, until the one on the fifth covers nearly the entire upper surface of the segment; apex of first segment quadrate, narrowing suddenly before tubercles; gastrocæli large and deep. Length .73 inch.

Hab. Vancouver's Island (H. Edwards). A very pretty species.

Trogus buccatus, Cresson (Trans. Am. Ent. Soc., vi. 199).

♀.—Robust, ferruginous; head large, strongly buccate, cheeks much swollen; tips of mandibles and antennae, except base, black; scutellum gibbous, convex, sides very abrupt; metathorax scabrose, with two sharp, divergent carinae behind, between which the surface is transversely striated, central area small, raised and not well defined; wings violaceous black in one specimen, and yellowish-fuscous in another; stigma fulvous, areolet shaped as usual in the genus; abdomen robust, subconvex, densely and finely punctured; gastrocæli large, but not deep. Length .60 inch.

Hab. Vancouver's Island (H. Edwards).

Platylabus consors, Cresson (Trans. Am. Ent. Soc., vi. 200).

♂.—Black; anterior orbits, broad on face, line on posterior orbits, sides of clypeus, spot on mandibles, palpi, scape beneath, upper margin of the prothorax narrowly, sometimes interrupted,

dot on tegulæ and a line beneath, white; antennæ as long as the body, slender; scutellum distinctly margined, with a pale spot towards tip; metathorax obliquely truncate behind, lateral angles small, subspiniform; wings hyaline; legs blackish, tips of posterior coxæ, their trochanters and all the femora ferruginous, spot on anterior coxæ beneath, spot on four anterior trochanters and their femora and tibiæ in front whitish; abdomen shining, feebly punctured; gastrocæli deep, transverse. Length .35 inch.

Var. Abdomen black, with segments 2-5 narrowly margined with red at apex; metathorax entirely black, legs mostly black, posterior femora only tinged with red.

Hab. California (Behrens). This may be the ♂ of *californicus*.

Platylabus californicus, Cresson (Trans. Am. Ent. Soc., vi. 201).

♀.—Ferruginous, shining; anterior, and sometimes posterior, orbits more or less white; occiput sometimes blackish; antennæ long, slender, more or less black; upper margin of prothorax sometimes narrowly white; mesothorax often varied with black; scutellum strongly margined; metathorax obliquely truncate behind, bounded above and laterally by a sharp carina, lateral angles prominent, spiniform; wings hyaline; abdomen polished, a few small punctures at base of second segment; gastrocæli transverse, deep, nearly meeting on disk, apex of first segment rather broad, depressed, smooth, sparsely punctured. Length .35 inch.

Hab. San Zalito, California (Behrens.).

Phygadeuon Crotchii, n. sp.

♀.—Robust, black, shining; mandibles, palpi and upper anterior orbits more or less ferruginous; antennæ long, stout, a broad white annulus on middle, third joint rather more than twice longer than broad, and equal with fourth; mesothorax finely punctured; scutellum triangular, flat, sparsely punctured; metathorax opaque, densely sculptured, not areolated, broadly excavated behind, lateral angles prominent, tuberculiform; tegulæ ferruginous; wings yellowish-hyaline; legs subrobust, ferruginous, coxæ, trochanters, posterior femora except base and tips of their tibiæ black, anterior tibiæ yellowish; abdomen depressed, smooth and polished, apex of first, and second segment entirely ferruginous; first segment robust, broad at apex; ovipositor short. Length .38 inch.

Hab. Lake Labache, British Columbia (G. D. Crotch). A very distinct species.

Phygadeuon albirictus, n. sp.

♂.—Black; head buccate, cheeks swollen; mandibles, palpi, scape beneath and tegulæ, white; wings hyaline, iridescent; metathorax areolated; anterior legs, and four posterior tibiæ ferruginous, four anterior trochanters pale, tips of posterior tibiæ blackish; abdomen shining, impunctured, first and base of second segment finely aciculate, narrow apical margin of second, and most of third segment pale ferruginous; first segment narrow, slightly wider towards apex. Length .20 inch.

Hab. California (H. Edwards).

Phygadeuon limatus, n. sp.

♀.—Black, shining; head scarcely buccate; mandibles, antennæ at base, tegulæ, legs and abdomen, except first segment, ferruginous; palpi pale; antennæ slender, basal joints of flagellum slender, cylindrical; metathorax strongly areolated, excavated behind, with prominent lateral angles; wings hyaline, areolet quite small, 5-angular; legs slender, posterior tarsi blackish; abdomen ovate, convex, smooth, polished, impunctured, first segment gradually dilated to apex, with prominent lateral tubercles behind the middle, apex narrower than base of second segment; ovipositor about half the length of abdomen. Length .25 inch.

Hab. California (H. Edwards).

Phygadeuon crassipes, Provancher (Nat. Can. ix., p. 11).

♀.—Robust, black; clypeus, mandibles, palpi, antennæ except tips, tegulæ, legs and abdomen ferruginous; antennæ robust, with short, thick-set joints; disk of mesothorax flat, depressed and rugose; excavation at base of scutellum bifoveolate, deep; metathorax distinctly areolated, the carinæ sharp and well defined, posterior face deeply excavated, lateral angles prominent, central area transversely ovate; wings fuscous; legs robust, femora swollen, tibiæ dilated at apex, and strongly setose; abdomen smooth, shining, impunctured, apex of first segment broadly dilated, flattened. Length .20–.30 inch.

Hab. California; Vancouver's Island (H. Edwards).

Phygadeuon californicus, n. sp.

♂.—Black, shining; head large, face pubescent; clypeus, mouth, antennæ at base beneath, tegulæ, legs and abdomen, ferruginous;

antennæ long; metathorax strongly areolated, truncate behind; wings smoky; legs subrobust; abdomen elongate, shining, impunctured, first segment blackish at base, strongly bicarinate before apex, which is a little narrower than base of second segment; apical segment black. Length .25 inch.

Hab. California (H. Edwards). This may be the ♂ of *crassipes*.

Phygadeuon fulvescens, n. sp.

♀.—Shining, fulvo-ferruginous; apical half of antennæ black, third joint rather more than twice longer than wide, and longer than fourth; cheeks, mesothorax, and scutellum polished, impunctured; metathorax subopaque, not areolated, deeply excavated behind, lateral angles prominent, the carina being sharp, a triangular rugose space on summit; sutures of thorax beneath more or less black; wings smoky, stigma fulvous; legs subrobust, tibiæ smooth; abdomen polished, impunctured, apex of first segment gradually dilated to tip, which is moderately broad; ovipositor short. Length .35 inch.

Hab. California (H. Edwards).

Cryptus proximus, Cresson (Proc. Ent. Soc., Phila., iii. p. 290).

♀.—Black, legs except coxæ ferruginous; wings violaceous, black; abdomen with a bluish tinge; all the coxæ slender, simple; antennæ setaceous, very slender. Length .65 inch.

Hab. Vancouver's Island (H. Edwards). Differs from Colorado specimens only by the darker wings.

♀ var.? *perplexus*.—Scape beneath, spot on mandibles and the legs, including coxæ and trochanters, brown-ferruginous.

Hab. California (H. Edwards).

Cryptus dirus, n. sp.

♀.—Black; abdomen except first segment ferruginous; anterior legs tinged with ferruginous; antennæ slender, fourth joint about two-thirds the length of third; a short narrow pale line on posterior orbits; prothorax, pleura, and metathorax rugose; mesothorax finely punctured; wings fuliginous, areolet moderate, side nervures slightly oblique; tarsi simple; abdomen shining, impunctured; ovipositor nearly as long as abdomen. Length .43 inch.

Hab.—California (H. Edwards).

Cryptus relativus, n. sp.

♀.—Black; legs except coxæ, trochanters, posterior tibiæ, and

tarsi, and abdomen except first segment more or less, ferruginous; line or spot on anterior orbits and posterior orbits narrowly whitish; antennæ setaceous, very slender, the fourth joint about three-fourths the length of third, which is long and cylindrical; mesothorax with deeply impressed longitudinal lines, shining, confusedly punctured; prothorax, pleura, and metathorax opaque, rugose, obliquely so on sides of metathorax, which is truncate behind, with prominent subacute lateral angles, disk with a subtriangular, ill-defined inclosure; wings fuscous or fuliginous, areolet moderate, with side nervures slightly oblique; legs slender, the joints of the four anterior tarsi dilated and spinose, posterior tarsi fuscous; abdomen impunctate, with first segment slender at base, gradually and slightly dilated to apex, bicarinate on disk, black, the apex sometimes ferruginous; ovipositor two-thirds the length of abdomen. Length .55 inch.

Hab. British Columbia (Crotch). Closely related to *robustus* Cres., from Colorado, which also has the four anterior tarsi dilated, but has all the tibiæ ferruginous, the abdomen black, with the apex only sometimes ferruginous.

***Cryptus pictifrons*, n. sp.**

♂.—Black; four anterior legs except coxæ and trochanters, posterior femora and the abdomen except first segment fusco-ferruginous; anterior orbits, broad on face, line on posterior orbits, spot on clypeus and spot on mandibles, white; mesothorax and scutellum shining, rest of thorax rugose, opaque; a well-defined arenated carina across metathorax on verge of truncation, and an irregular transverse one across the middle, the space between the two longitudinally rugose; wings hyaline, areolet moderate, almost quadrate; posterior tibiæ and basal joints of tarsi black, remainder of their tarsi whitish; abdomen slender, shining, impunctate, first segment slightly broader posteriorly, with prominent lateral tubercles. Length .52 inch.

Hab. Green River, Wyoming Territory (Putnam).

***Cryptus tejonensis*, n. sp.**

♀.—Black; orbits, sometimes spots on face, on clypeus, and on mandibles, scape beneath, legs including coxæ, and abdomen entirely, ferruginous or sanguineous; antennæ setaceous, very slender; metathorax with spiniform lateral angles; wings fuliginous, more or less violaceous; tarsi slender, simple; apex of first

abdominal segment broad, nearly quadrate, the sides being straight, ovipositor long. Length .45-.70 inch.

Hab. Fort Tejon, California (H. Edwards, Crotch).

Cryptus pacificus, n. sp.

♂.—Black; legs including coxæ and abdomen entirely, ferruginous; orbits, interrupted behind summit of eyes, spot on middle of face, clypeus, spot of mandibles and palpi, whitish; antennæ long, scape beneath sometimes tinged with red; tegulæ reddish in front; mesothorax and scutellum shining, the former with two deeply impressed lines; metathorax rugose, with two irregular, wavy, transverse carinæ, somewhat confused on the disk, lateral angles subacute; wings hyaline, apical margins narrowly dusky, areolet moderate, broad, nearly quadrate; legs long, slender, posterior tibiæ dusky, their tarsi whitish beyond first joint, sometimes the anterior coxæ and the four anterior trochanters beneath are pale; abdomen long, slender, especially at base, shining, impunctate, the first segment slightly widened towards tip, lateral tubercles prominent, behind which the upper surface is somewhat sulcate. Length .45-.65 inch.

Hab. California (H. Edwards).

Cryptus latus, Provancher (Nat. Can. vi. p. 204).

♀.—Small, black; antennæ with a white annulus; four anterior legs except coxæ and trochanters, posterior femora except tips, and the three basal segments of abdomen ferruginous; wings fusco-hyaline; base of posterior tibiæ and of the first, and more or less of the second, joint of their tarsi, also of the tibial spurs, white; a white spot at apex of abdomen; ovipositor as long as abdomen. Length .25 inch.

Hab. British Columbia (Crotch).

Cryptus atriceps, n. sp.

♀.—Fulvo-ferruginous; head entirely black; palpi pale; antennæ black beyond the fifth joint, joints 8-10 white above, third joint very long, about one-fifth longer than fourth; sutures of thorax more or less black; impressed lines of mesothorax black anteriorly; a line or spot on upper margin of prothorax, tegulæ, apex of scutellum and spot on postscutellum, white; metathorax finely sculptured, a well-defined transverse carina before the middle, lateral angles small, spiniform; wings fusco-hyaline, areolet pentagonal; tips of posterior tibiæ and of their tarsi dusky,

second and third joints of the latter white; abdomen robust, minutely punctured on second segment, apex of first segment dilated; apex of abdomen dusky, ovipositor long. Length .25 inch.

Hab. Great Salt Lake, Utah.

Cryptus calipterus, Say (Bost. Journ. Nat. Hist., i p. 234).

♀.—Ferruginous; antennæ except base, tips of posterior tibiæ and band at base of third abdominal segment, black; head narrow, cheeks flat; third joint of antennæ about four times longer than broad, and equal with fourth; wings yellow with three broad fuliginous bands, the apical one broadest and confluent beneath with the middle band, leaving a triangular yellow spot beyond areolet, which is small and nearly quadrate; ovipositor longer than abdomen. Length .50 inch.

Hab. California (Stretch), Utah. The specimen from the last locality is paler ferruginous, with tip only of antennæ black, and the fuscous bands on wings quite narrow.

Cryptus Crotchii, n. sp.

♀.—Robust, fulvo-ferruginous; head subbuccate; antennæ black at tips, third joint rather more than three times longer than broad, and equal with fourth; mesothorax and scutellum shining, minutely punctured; pleura confluent punctured, opaque; metathorax rugose, opaque, an arched transverse carina above posterior truncation; wings yellow, marked as in *calipterus*, areolet small, nearly quadrate; tips of posterior tibiæ black, tarsi strongly setose beneath; abdomen opaque, impunctate, a black band at base of third segment, apex of first segment squarely dilated, somewhat sulcate medially; ovipositor as long as the abdomen. Length .60 inch.

♂.—Yellowish-ferruginous; face, clypeus, and cheeks yellow; antennæ stout, slender at tips, which are black as well as joints two and three above; prothorax beneath, pleura, sides of metathorax, and lateral region of scutellum, more or less black; wings yellow-hyaline, with the fuscous bands nearly or quite obliterated; abdomen slender, base of third and fourth segments more or less black; sometimes the whole abdomen is obfuscated. Length .50 inch.

Hab. San Diego, California (Crotch). Closely allied to *calipterus*, but more robust, with broader head, and shorter basal joints of flagellum.

Cryptus turbatus, n. sp.

♀.—Size and sculpture of *Crotchii*, but of a darker ferruginous color; apex of antennæ, sutures of thorax, tip of posterior tibiæ, and band at base of third abdominal segment, black; metathorax scabrous, rounded, subtruncate behind, with a short oblique carina on each side; wings fuliginous, a paler patch immediately before and behind stigma, areolet small, quadrate; otherwise as in *Crotchii*. Length .60 inch.

Hab. California (Stretch). This may prove to be only a dark-winged variety of *Crotchii*.

Cryptus resolutus, n. sp.

♂.—Fulvo-ferruginous; head black, sides of face, spot on middle, clypeus and labrum yellow; orbits very broad behind eyes, but narrowed beneath, palpi and scape beneath fulvous; remainder of antennæ black; prothorax except upper margin, whole of pleura, broad stripe on anterior middle of mesothorax, lateral region of scutellum, basal margin of metathorax and the flanks, black; mesothorax shining, sparsely punctured; scutellum elongate, flattened, polished; metathorax rounded, depressed above, pubescent, without transverse carinæ; wings fusco-hyaline, darker at tips; the coxæ, except posterior pair above, stripe on posterior femora beneath and tips of their tibiæ black; abdomen slender, especially at base, smooth and polished, basal margin of second and following segments more or less black, first segment slightly broader at tip. Length .55 inch.

Hab. California (H. Edwards).

Cryptus Edwardii, n. sp.

♀. Ferruginous, shining; head buccate, cheeks swollen; antennæ unusually short, third, fourth, and fifth joints each rather more than twice longer than broad, sixth joint quadrate, remainder transverse, apical joints black; sides of thorax and legs with sparse glittering hairs; mesothorax with a few scattering large punctures; pleura sparsely punctured; metathorax obsoletely sculptured, destitute of carinæ, the flanks smooth and shining, posterior face with a broad shallow excavation, sides rounded; wings fuliginous or generally fusco-hyaline, darker on apical margins, sometimes yellowish-hyaline, subfasciate with fuscous, areolet moderate, subquadrate; legs robust, the femora somewhat swollen, four anterior tarsi with dilated, spinose joints, the inter-

mediate tibiæ densely spinose; abdomen robust, impunctured, apex of first segment rather broadly dilated, base of third segment narrowly black; ovipositor about as long as abdomen. Length .40-.60 inch.

Hab. California (H. Edwards); Wilmington, Cal. (Crotch). Very distinct by the form of antennæ and legs. The color of the wings varies greatly.

Cryptus punicus, n. sp.

♀.—Dark rufo-ferruginous, shining; head long, narrow, subtriangular in front, cheeks flat, polished; antennæ long, setaceous, very slender, black, scape ferruginous; mesothorax and scutellum smooth and polished, with a few scattering punctures, the two longitudinal impressed lines on mesothorax very deep; prothorax and pleura opaque, finely rugose, obliquely so on pleura; metathorax rugose, opaque, truncate behind, the verge with a sharp carina, ending on each side in a short stout spine, disk with a subtriangular inclosed space; wings dark fuliginous, violaceous, areolet moderate, subquadrate; legs slender, tarsi slender and simple, posterior tibiæ more or less fuscous, middle of their tarsi pale; abdomen shining, impunctured, first segment with moderately dilated apex, before which the disk is strongly bicarinate; ovipositor two-thirds the length of abdomen. Length .55 inch.

♂.—Very slender; dark ferruginous; shining; a broad band extending from base of antennæ to posterior margin of occiput, tips of mandibles, antennæ except scape and sutures of thorax nearly black; anterior orbits sometimes yellowish; pleura finely punctured; metathorax oblique, subconvex, gradually descending to tip, finely punctured, thickly clothed with short black pubescence, flanks strongly punctured; legs slender, posterior tibiæ more or less obfuscated, tarsi beyond first joint yellowish-white; abdomen slender, polished, first segment very slightly wider posteriorly, the lateral tubercles prominent. Length .50-.55 inch.

Hab. California; Washington Territory; Vancouver's Island (H. Edwards).

Cryptus purpuripennis, n. sp.

♀.—Ferruginous, shining; head subbuccate, deeply excavated behind antennæ; antennæ long, rather slender, apical half black, joints 3-5 equal in length, each being about three times longer

than broad; mesothorax convex, sparsely and finely punctured, with a few scattering larger punctures; pleura and flanks of metathorax finely punctured, shining; upper portion of metathorax finely shagreened, subopaque, rounded, without carinæ, except on verge of the posterior truncation; wings blackish-fuliginous, strongly violaceous, areolet small, nearly quadrate; legs rather slender, tarsi simple; abdomen swollen beyond first segment, polished, impunctured, apex of first segment dilated, disk of first and second segments with a shallow depression; ovipositor as long as abdomen Length .55 inch.

Hab. California (H. Edwards). Resembles *punicus* very much in color, but the head is more buccate, the antennæ more robust, with shorter joints and differently colored; the sculpture of the thorax and shape of the abdomen are entirely different.

Linoceras Edwardsii, n. sp.

♂.—Black; face, clypeus, labrum, mandibles, palpi, upper anterior orbits, line on posterior orbits, scape beneath, tegulæ, spot beneath, and the scutellums, pale lemon-yellow; antennæ orange-yellow, black at extreme tips; wings hyaline, tinged with yellow, extreme apical margins fuscous; legs yellow, very slender, posterior pair very long, posterior coxæ, base of their trochanters above and their femora except base, and tips of their tibiæ beneath, black; abdomen very slender, lemon-yellow, base of second and following segments broadly black, also a black spot on apex of first segment between tubercles and tip. Length .55 inch.

Hab. California (H. Edwards). A very handsome species.

Mesostenus gracilipes, n. sp.

♀.—Elongate, narrow, shining, uniformly fulvous; tips of mandibles, antennæ, except scape and third joint beneath, and extreme base of posterior tibiæ black; antennæ long and slender; mesothorax prominently trilobed, sparsely punctured; metathorax obliquely depressed behind, rugulose, with an angulate carina at base, anterior to which the surface is smooth and shining; wings fuscous. areolet long and very narrow; legs long and very slender, especially the posterior pair, the trochanters of which are half the length of the femora, the posterior trochanter about double the length of the anterior one; abdomen polished, first segment long, slightly swollen at tip, base of second segment considerably

contracted; ovipositor very long, nearly twice the length of body. Length .46 inch, of ovipositor .90 inch.

Hab. California (H. Edwards).

Ophion costale, n. sp.

♀.—Fulvo-ferruginous, shining; face broad, the middle closely punctured, subtuberculate immediately beneath base of antennæ; clypeus strongly punctured, tips truncate, lateral sutures and tips of mandibles black; cheeks swollen; antennæ shorter than usual, reaching about to tip of second abdominal segment; mesothorax convex, polished; scutellum very convex; metathorax confluent punctured, without transverse carina, sutures of thorax narrowly black; wings subhyaline, stained with yellowish at base and with fuscous along apical costal margin, darkest at tip of marginal cell; basal margin of third and fourth abdominal segments and an oblique mark on sides of second segment, black. Length .53 inch.

Hab. Klamath Co., California (H. Edwards). Readily distinguished from all the other species known to me by the ornamentation of the wings.

Nototrachys californicus, n. sp.

♀.—Black; orbits entirely, broad beneath antennæ, sides of clypeus, mandibles, palpi, short stripe on each side of mesothorax, tegulæ, spot before, another beneath, and spot on scutellum, yellow, sometimes shading into sanguineous; antennæ brown, scape beneath paler; mesothorax transversely rugose; metathorax reticulated, densely silvery-sericeous at the sides and at apex; wings hyaline, iridescent; legs honey-yellow, four anterior coxæ and their tibiæ and tarsi more or less yellow; posterior legs brown-ferruginous, coxæ black, tips of femora and of tibiæ blackish, tarsi fuscous, pale at base of joints 1 and 2; abdomen black, shining, second, third, and fourth segments more or less brown-ferruginous. Length .32 inch.

Hab. San Diego, California (Crotch).

Exochilum occidentale, n. sp.

♀.—Black, head and thorax clothed with short black pubescence, coarsely punctured; orbits, broad on each side of antennæ, and interrupted behind summit of eyes, stripe down middle of face, clypeus, labrum, upper margin of mandibles, and palpi, yellow; antennæ fulvous, scape black; tegulæ and scutellum yellow-

ish; spot on each side of pleura posteriorly, and on flanks of metathorax ferruginous; metathorax coarsely reticulated, subcon-
cave; wings fusco-hyaline, stained with yellowish, stigma and
costal nerve honey-yellow; legs yellow, all the coxæ, apical half
of posterior femora and apical third of their tibiæ, black; abdo-
men honey-yellow, polished, basal two-thirds of upper edge of
second segment, stripe on each side of fourth segment, and the
following segments entirely black. Length .70 inch.

Hab. Oregon (H. Edwards). This also occurs in Colorado.

Anomalon Edwardsii, n. sp.

♀.—Ferruginous, head and thorax clothed with a short pale
sericeous pubescence; head short, broad, yellow, vertex, occiput,
and posterior margin of cheeks black, upper part of cheeks tinged
with ferruginous; a transverse prominence immediately beneath
insertion of antennæ; antennæ two-thirds the length of body,
fulvous, darker above, first, second, and base of third joints black
above and yellow beneath; three broad stripes on mesothorax,
the lateral ones confluent behind, prothorax anteriorly, pleura,
except anterior margin, and base of metathorax, black; metatho-
rax very coarsely reticulated; wings fusco-hyaline, darker beyond
stigma which is fulvous, discoidal cell very slightly narrowed at
base; four anterior legs honey-yellow, tibiæ and tarsi paler; poste-
rior legs black, second trochanter and extreme base of femora fer-
ruginous, basal half of tibiæ and the tarsi, except terminal joint,
yellow, tarsi thickened, the first joint nearly three times longer than
second; abdomen shining, ferruginous, apex of first broad, upper
margin of second, and the fifth and sixth segments entirely black,
sides of third and fourth varied with fuscous. Length .85 inch.

Hab. Vancouver's Island (Henry Edwards).

Anomalon californicum, n. sp.

♀.—Ferruginous, head and thorax clothed with short brownish
pubescence; face, orbits, and clypeus yellow, spot inclosing ocelli
black; antennæ short, stout, about half the length of body, scape
yellow beneath; sutures of thorax narrowly black; mesothorax
shining, sparsely punctured; scutellum gibbous, slightly furrowed
down the middle; metathorax coarsely reticulated, depressed and
subconcave above; wings tinged with yellowish-fuscous, darker
at tips, discoidal cell not narrowed at base; four anterior legs
honey-yellow, posterior pair fulvous, with tips of femora and of

tibiae black, tarsi yellow, thickened, first joint twice the length of second; abdomen shining, basal half of upper edge of second segment and upper edge of fifth and sixth segments black, lower margin of apical segments tinged with blackish. Length .65 inch.

Hab. California (H. Edwards).

Anomalon verbosum, n. sp.

♂ ♀.—Black; head large, face narrowed beneath; narrow orbital line on each side of face, dot at summit of eyes, spot beneath eyes and mandibles except tips, yellowish; antennae short, about as long as head and thorax together, entirely black; thorax immaculate; metathorax reticulated, grooved down the middle; wings fusco-hyaline, discoidal cell very much contracted at base; legs rufo-ferruginous, coxæ and trochanters black, posterior tibiae fuscous in ♀, their tarsi blackish in ♀ with basal joint slightly thickened, and in ♂ with second and third joints ferruginous and basal joint dilated; abdomen yellowish-ferruginous, upper edge of second segment and the fifth and following segments black, sometimes only the apex of fifth segment is black. Length .40 inch.

Hab. California (H. Edwards).

Anomalon maceratum, n. sp.

♂.—Black; head and thorax clothed with short pale pubescence; head not wider than thorax, cheeks prominent; orbits, face, clypeus, labrum, mandibles except tips, palpi and scape beneath, yellow; antennae about half the length of body; posterior middle of mesothorax depressed and transversely rugose; prothorax and pleura more or less, longitudinally striated; scutellum rugose, with two reddish spots at tip; metathorax coarsely reticulated, sulcate down the middle; tegulae fulvous; wings fusco-hyaline, discoidal cell slightly narrowed at base; four anterior legs yellow, their femora honey-yellow, posterior legs ferruginous, base of coxæ and apex of tibiae black, tarsi yellow, slightly thickened, first joint about twice as long as second; abdomen long, slender, fulvo-ferruginous, upper edge of second and the two apical segments black. Length .60 inch.

Hab. California (H. Edwards).

Anomalon vivum, n. sp.

♀.—Ferruginous; vertex, covering ocelli and occiput, black; face, orbits, clypeus and mandibles yellow; antennae about half

the length of body, black, brown beneath, scape yellow beneath; prothorax in front and pleura beneath black; metathorax reticulated, deeply sulcate down the middle, with a short arcuated carina on each side near base; wings yellowish-hyaline, discoidal cell slightly narrowed at base; tips of posterior tibiæ dusky, their tarsi slender, yellowish; abdomen shining, with upper edge of second and following segments narrowly black. Length .50 inch.

Hab. Oregon (H. Edwards).

Campoplex major, n. sp.

♀.—Black, opaque, clothed with short whitish pubescence, more dense on face and metathorax; mandibles, palpi and tegulæ lemon-yellow; a tuft of long pale pubescence on each side of scutellum; middle of metathorax longitudinally concave and transversely aciculated; wings hyaline, tinged with yellowish, a little smoky at tips, areolet large, rhomboidal; anterior legs except base of coxæ and trochanters and femora beneath, intermediate trochanters and femora above, their tibiæ and tarsi entirely, and a stripe on outer side of posterior tibiæ, lemon-yellow; four anterior ungues black; abdomen shining, ferruginous, base of first segment, its apex above, upper surface of second segment and base of third, black. Length .75 inch.

Hab. Vancouver's Island (H. Edwards). A fine large species.

Limneria californica, n. sp.

♂.—Black, shining; mandibles, palpi, scape beneath, and tegulæ yellow; flagellum testaceous beneath towards the tip; metathorax transversely rugulose behind; wings hyaline, iridescent, areolet small, petiolated; legs fulvo-ferruginous, four anterior coxæ, and all the trochanters yellow, base of posterior tibiæ and of their tarsi yellowish, posterior coxæ and base of their trochanters black; narrow apical margin of second abdominal segment and apical half of third ferruginous. Length .30 inch.

Hab. San Diego, California (Crotch).

Mesochorus iridescens, n. sp.

♀.—Luteo-testaceous, polished; tips of mandibles, spot behind antennæ, back of head, three broad stripes on mesothorax, broad band at base of metathorax, pleura beneath, and first abdominal segment except tip, black; antennæ long and slender, fuscous, paler at base, scape beneath luteous; tegulæ white; wings hyaline, beautifully iridescent; legs pale, tips of posterior tibiæ and of

their tarsi blackish; sides of second abdominal segment and the apical segments more or less stained with fuscous. Length .25 inch.

Hab. California (Behrens).

Pristomerus pacificus, n. sp.

♀.—Black; orbits and clypeus ferruginous, mandibles yellow, antennæ entirely black; tegulæ yellow; wings hyaline, iridescent; legs, including coxæ, ferruginous, anterior pair paler, posterior trochanters, tips of their tibiæ and their tarsi more or less dusky, femoral tooth robust; abdomen polished, ferruginous, first segment except apical margin, basal two-thirds of second, and base of remaining segments more or less black; ovipositor three-fourths the length of abdomen. Length .30 inch.

Hab. California (H. Edwards).

Exetastes maurus, n. sp.

♀.—Entirely black, shining, robust; head and thorax clothed with short black pubescence; antennæ tinged with brown; mesothorax strongly and rather closely punctured; scutellum gibbous, coarsely punctured; metathorax coarsely rugose, opaque; wings dark fuscous, paler towards tips, violaceous; abdomen short, robust, polished, impunctured. Length .45 inch.

Hab. California (H. Edwards).

Exetastes zelotypus, n. sp.

♂ ♀.—Black, shining; thorax closely and finely punctured, metathorax finely rugose; wings fuliginous, strongly violaceous; tips of anterior femora and tibiæ and posterior femora ♀, four anterior femora except base, their tibiæ and tarsi entirely, posterior femora and base of their tibiæ ♂, ferruginous; abdomen entirely ferruginous, polished, elongate, and rather slender at base. Length .50 inch.

Hab. San Diego, California (Crotch).

Grotea californica, n. sp.

♀.—Head and thorax yellow, polished, impunctured; occiput, middle of vertex, three stripes on mesothorax, stripe on pleura and base of metathorax fulvo-ferruginous; two fuscous spots behind scape; antennæ fulvous, scape dusky above (joints 10 and following wanting); sutures of thorax and a wedge-shaped mark on sides of pleura black; wings pale fuliginous, a small dark cloud in apical margin; legs yellow, the femora and posterior legs more

or less varied with fulvous; abdomen fulvo-ferruginous, the first segment, except a stripe above and spot at tip above, and also spot on each side of all the segments becoming larger on apical segments, yellow. Length .70 inch.

Hab. California (H. Edwards).

Mesoleptus innoxius, n. sp.

♂.—Honey-yellow; face, clypeus, mandibles, except tips and palpi, tegulae, spot before and spot beneath, pale yellow; antennae long and slender, dusky at extreme tips; large spot on pleura beneath, and sides and tips of metathorax more or less black; wings hyaline, iridescent, stigma luteous, areolet small, petiolated; legs long and slender, four anterior coxae and trochanters pale yellow; abdomen dark honey-yellow or fulvous, base of first segment black, apical segments more or less varied with dusky; first segment straight, not slender at base and slightly dilated to apex, lateral tubercles large and prominent. Length .30 inch.

Hab. Lake Quesnel, British Columbia (Crotch).

Mesoleius Stretchii, n. sp.

♀.—Opaque black; head rather swollen behind the eyes; clypeus, mandibles except tips and scape beneath luteous; sides of mesothorax tinged with dull ferruginous; metathorax with an inclosed elongate central area; tegulae yellowish white; wings hyaline, iridescent, stigma luteous, areolet small, triangular, subpetiolated; legs slender, and with coxae, pale ferruginous, four anterior coxae beneath and their trochanters yellow; tips of four anterior tarsi and posterior pair more or less fuscous; abdomen subpetiolated, finely and densely sculptured, depressed at base, first segment very slightly curved, gradually dilated to tip which is broad, upper surface flat and even, the lateral margin finely carinate, sides of apex yellow; lateral margin, broad at tip and very narrow apical margin of all the segments—sometimes indistinct on second and third, pale yellow; second and third segments sometimes tinged with brown. Length .27 inch.

Hab. California (Stretch).

Mesoleius? aleutianus, n. sp.

♂.—Slender, black, head and thorax with short pale pubescence; head short, subbuccate; antennae long, curved at tip, metathorax flat and declivous behind, with carinate sides; scutellum longitudinally compressed, convex above; metathorax roughened,

subsulcate on each side of middle, spiracles small, circular; tegulae whitish; wings hyaline, beautifully iridescent, stigma rather large, fuscous, areolet 5-angular, with thickened nervures; legs long and very slender, ferruginous, coxæ and trochanters black, tips of posterior femora, their tibiæ and tarsi more or less dusky; abdomen sessile, slightly widened to tip, spiracles placed a little before the middle. Length .30 inch.

Hab. Aleutian Islands (H. Edwards).

Mesoleius? lætus, n. sp.

♂.—Black; face, clypeus, mandibles except tips, palpi, scape beneath, spot on each side of mesothorax in front divided by impressed line, spot behind anterior coxæ, tegulae, short line beneath, four anterior coxæ, trochanters, femora and tibiæ, posterior trochanters, extreme base of their femora, basal two-thirds of their tibiæ, and abdomen except two apical segments, all pale yellow; apex of flagellum fulvous beneath; wings yellowish hyaline, no areolet; legs slender, all the tibiæ honey-yellow, claws simple; abdomen subpetiolated, subclavate, being gradually broader to tip, the first and fourth and fifth segments often stained with fulvous. Length .35 inch.

Hab. Vancouver's Island (H. Edwards).

Mesoleius? rubiginosus, n. sp.

♂.—Fulvous; face, clypeus, mandibles except tips (which are black), palpi, spot on scape beneath, tegulae, short line beneath, scutellum, pleura beneath, four anterior coxæ and trochanters, and middle of tarsi pale yellow; tips of antennæ and sutures of thorax black; wings dusky, no areolet; base of posterior tibiæ sometimes pale, claws simple; abdomen subpetiolate, subclavate. Length .40 inch.

Hab. California (H. Edwards).

Tryphon tejonicus, n. sp.

♂.—Black, shining, clothed with a short, pale sericeous pubescence; head broad, clypeus, anterior margin of tegulae and legs except coxæ, ferruginous; mesothorax broad, gibbous, finely punctured; scutellum very abrupt posteriorly, depressed above and carinate laterally; metathorax short, with strongly elevated carinae; wings hyaline, nervures and stigma black, areolet obliquely triangular, subpetiolated; legs short and robust, especially the femora, claws simple; abdomen short, broad towards apex, sessile,

densely sculptured, opaque; first segment broad, with two strongly elevated longitudinal carinae on middle extending to the tip. Length .25 inch.

Hab. Fort Tejon, California (Crotch).

Tryphon lusorius, n. sp.

♂.—Black, rather shining, clothed with a short pale sericeous pubescence; apex of clypeus, mandibles and tegulae yellow; antennae pale beneath at tip; wings hyaline, iridescent, stigma fuscous, pale at base, areolet small, rhomboidal, petiolated; four anterior legs yellow, coxae, trochanters and femora beneath black; posterior femora robust, ferruginous, black at base beneath and at extreme tip, coxae, trochanters, tibiae and tarsi black or fuscous, the tibiae above with a yellow stripe extending from base nearly to tip, claws simple; abdomen subclavate, ferruginous, the first segment entirely, second except apex, and base more or less of remaining segments black; first segment slightly narrowed at base, not carinate above. Length .25 inch.

Hab. California (H. Edwards).

Tryphon californicus, n. sp.

♂ ♀.—Black, shining, clypeus, mandibles, palpi and tegulae yellow; head rather broad; face with an elevated, flattened, strongly punctured space on the middle; metathorax with two approximate longitudinal carinae on disk, two on each side and a circular one at tip; scutellum convex, deeply excavated at base; wings hyaline, areolet small, oblique, petiolated; legs robust, fulvo-ferruginous, coxae and trochanters black, four anterior tibiae and tarsi yellow, tips of posterior femora, their tibiae and tarsi more or less fuscous or black; abdomen ferruginous or fulvous, sometimes fusco-ferruginous, in ♀ the first segment only is black with apical margin ferruginous, in ♂ the first and often more or less of the base of second and third segments black; first segment at base above sub-bicarinatate. Length .20 inch.

Hab. San Diego, California (Crotch).

Erromenus obscurellus, n. sp.

♀.—Black, shining; head broad; face broad and flattened, densely sculptured; spot on mandibles and palpi dull testaceous; mesothorax minutely punctured; scutellum convex; metathorax with strongly elevated lines; wings hyaline, areolet oblique, subpetiolated; legs subrobust, black, tips of femora, a line on poste-

rior pair above, and all the tibiæ and tarsi ferruginous, tips of posterior tibiæ and tarsi dusky; claws pectinated; abdomen subsessile, subcompressed at tip, first segment broad at tip, and strongly narrowed behind the tubercles, apex of second and the third and following segments more or less ferruginous. Length .30 inch.

Hab. California (H. Edwards).

Ctenistes californicus, n. sp.

♂.—Black, clothed with a short fine pale pubescence; face, clypeus, mandibles, palpi, lower part of cheeks, scape beneath, sides of collar, tegulæ, spot before, another beneath, spot on anterior margin of pleura, tip of scutellum, lateral apical margin, post-scutellum, four anterior coxæ and the trochanters, and apical margin of second and following segments of abdomen, all white; flagellum luteous beneath; broad stripe on each side of mesothorax, scutellum, and pleura ferruginous; wings hyaline, iridescent, areolet present; legs fulvous, tips of posterior femora, their tibiæ and tarsi black; claws pectinate; abdomen subclavate, sessile, the white bands broader on apical segments. Length .22 inch.

Hab. California (H. Edwards). A handsomely marked species.

Exochus brunnipes, n. sp.

♀.—Small, black, smooth, and polished, impunctured; antennæ brown; metathorax with conical central area; tegulæ pale brownish; wings hyaline, areolet present; legs short, robust, brownish-fulvous, femora very much swollen, coxæ, trochanters and femora beneath black, posterior tibiæ and tarsi fuscous, paler at base; abdomen above perfectly smooth, first segment with plain upper surface. Length .22 inch.

Hab. Nevada (Putnam).

Bassus maculifrons, Cresson (Proc. Ent. Soc., Phila., iv. p. 272).

♀.—Black; sides of face, spot on middle, clypeus, mandibles hooked-marked on each side of mesothorax, broad stripe on scutellum, post-scutellum, tegulæ, spot before, another beneath, and transverse spot on each side at tip of second and following segments white; wings hyaline, iridescent, areolet wanting; legs fulvous, posterior tarsi black; abdomen shining, the first and base of second segments roughly sculptured and opaque, no transversely impressed lines. Length .34 inch.

♂.—All of head beneath antennæ, anterior orbits, lower part of cheeks, scape beneath, anterior margin of pleura, transverse line

on each side, and four anterior coxæ and trochanters, white or yellowish-white; otherwise marked as in ♀, except that the mark before tegulæ is large and cuneiform, and the lateral spots on abdomen are sometimes connected by a narrow line on apical margin of the segments. Length .27 inch.

Hab. California (Behrens, ♀; H. Edwards, ♂). This pretty species occurs also in Colorado.

Bassus cinctulus, n. sp.

♂ ♀.—Black; face, anterior orbits, lower part of cheeks, clypeus, mandibles except tips, scape beneath, two longitudinal stripes on mesothorax, the lateral margin before tegulæ, broad stripe on scutellum, postscutellum, tegulæ, spot before, short line beneath, anterior margin of pleura, trifurcate mark beneath, sutural line between pleura and metathorax, narrow line on tip of first segment of abdomen not reaching the side, rather broad band at tip of second, third, and fourth segments, and spot on each side at base of fourth segment, all white; wings hyaline, areolet wanting; legs fulvous, four anterior coxæ, tips of posterior pair, all the trochanters, four anterior legs in front, and broad annulus on posterior tibiæ white; extreme base and apical third of posterior tibiæ black, their tarsi ———; base of abdomen opaque, punctured, apex shining, a transverse impressed line on second and third segments. Length .22 inch.

Hab. California (H. Edwards). Easily recognized by the two distant white stripes on mesothorax and white bands on abdomen.

Bassus decoratus, n. sp.

♂.—Black; face, anterior orbits, lower parts of cheeks, clypeus, mandibles, palpi, scape beneath, two stripes on mesothorax abbreviated behind and confluent anteriorly with broad lateral margin, sides of scutellum, postscutellum with line on each side extending to base of wings, narrow anterior margin of pleura, transverse line on each side, sutural line between pleura and metathorax, tegulæ, spot before and another beneath, all pale yellow; wings hyaline, areolet present; legs pale fulvous, all the coxæ and trochanters white, posterior coxæ black at base beneath, posterior tarsi black; abdomen shining, with first and base of second segments rough and dull, no transverse impressed lines; apical third of second segment, the third and apical half of fourth fulvous; a yellowish band at base of third segment interrupted

medially, basal margin of fourth segment narrowly pale yellow, broadly margined behind with black. Length .23 inch.

Hab. California (H. Edwards)

***Bassus pacificus*, n. sp.**

♂ ♀.—Black; spot on middle of face, clypeus, mandibles, palpi, broad lateral margin of mesothorax hooked in front, tegulae, spot before and one beneath, pale yellowish; wings hyaline, iridescent, areolet wanting; four anterior coxae except base, their trochanters and tips of posterior coxae white, remainder of coxae black, femora, tibiae, and four anterior tarsi fulvous, posterior tarsi blackish; abdomen ♀ subcompressed at tip and shining, no transverse impressed lines, first and second segments roughly sculptured, apex of second, the third, and more or less of fourth segments ferruginous. Length .23-.25 inch.

Hab. California, ♀; Vancouver's Island, ♂ (H. Edwards).

***Metopius Edwardsii*, n. sp.**

♂.—Short, robust, black, opaque, roughly sculptured; face, anterior orbits, labrum, palpi, scape beneath, upper margin of prothorax, narrow apical margin of scutellum, spot on each side of metathorax, spot at tip of four anterior coxae, all the trochanters, four anterior femora in front, base and apex of posterior pair, all the tibiae, four anterior tarsi, and base of posterior pair, first abdominal segment except base, spot on each side of second segment at tip and apical margin of remaining segments broader on third and fourth, all yellowish-white; thorax closely and strongly punctured; wings subhyaline, tinged with fuscous especially along costa; posterior femora swollen; first segment pyramidal in profile and bituberculate on disk, second and following segments coarsely longitudinally rugose, much more rough on second and third. Length .50 inch.

Hab. Washington Territory (Henry Edwards).

***Coleocentrus occidentalis*, n. sp.**

♀.—Black; scape beneath and palpi pale; tegulae fulvous; wings yellow-hyaline, with a violaceous reflection, stigma pale brown with yellow spot at base, nervures blackish; legs brownish fulvous, anterior pair in front and intermediate tibiae in front and tarsi yellow, coxae dark, black at base; abdomen dark brownish-fulvous, first segment except tip and the two or three apical seg-

ments above, black; ovipositor as long as body. Length .85 inch.

Hab. Vancouver's Island (H. Edwards).

Ephialtes thoracicus, n. sp.

♀.—Black; tip of clypeus, mandibles, and scape beneath, brown; face with short pale pubescence, clypeus with long pale hairs; palpi whitish; mesothorax, scutellum, pleura, and flanks of metathorax ferruginous; middle lobe of mesothorax gibbous, very prominent, smooth; metathorax finely rugulose, clothed with short pale pubescence; lower margin of prothorax and tegulæ white; wings hyaline, iridescent, areolet small, triangular, subpetiolated; legs very slender, the anterior pair entirely, middle trochanters, femora, and tibiæ, pale yellow, middle coxæ, honey-yellow, pale beneath, their tarsi blackish, posterior coxæ, trochanters beneath and femora bright ferruginous, their trochanters above, tibiæ and tarsi black: abdomen long, narrow, black, immaculate, finely sculptured; ovipositor as long as the body. Length .50 inch.

Hab. Vancouver's Island (H. Edwards).

Pimpla Behrensii, n. sp.

♂ ♀.—Black; palpi, tegulæ and spot in front white; mesothorax, scutellum, and pleura shining, the former finely and sparsely punctured; wings hyaline, iridescent; legs fulvous, anterior pair pale in front, coxæ black, middle tibiæ with whitish annulus; posterior tibiæ black, with broad white annulus towards base, their tarsi black more or less white at base of all the joints; abdomen strongly punctured and finely pubescent, apical margin of the segments narrowly pale or ferruginous, sides of the segments with ferruginous spot, or more or less broadly margined with ferruginous; ovipositor of ♀ short. Length .35–.40 inch.

Hab. California (Behrens). A very common species.

Lampronota gelida, n. sp.

♂.—Black, clothed with short pale pubescence; face yellow, with three longitudinal black stripes, sometimes broken into spots; clypeus yellow, with basal margin or spot on each side black; mandibles except tips, and palpi, yellow; tegulæ and spot before and sometimes a spot on each side of mesothorax in front, yellow; metathorax densely punctured; wings hyaline, more or less tinged with yellowish, tegulæ and basal nervures pale, areolet small,

subrhomboidal, petiolated; legs fulvous, four anterior coxæ more or less beneath, their trochanters and line on their femora beneath, yellow; four anterior coxæ at base, posterior pair, and the basal trochanters black, posterior tarsi blackish; abdomen slender, ferruginous, first segment, except tip and sometimes the two or three apical segments, black. Length .45 inch.

Hab. Lake Lahache, British Columbia (Crotch).

Lampronota vivida, n. sp.

♂.—Black, clothed with a short pale pubescence; face, anterior orbits not reaching summit of eyes, clypeus, mandibles except tips, palpi, scape beneath, line on anterior lateral margin of mesothorax dilated and hooked in front, tegulæ, spot before and one beneath, pale yellow; tip of scutellum pale; wings pale yellowish hyaline, areolet subrhomboidal, petiolated; legs fulvous, four anterior coxæ and trochanters and their femora and tibiae in front pale yellow: base of posterior coxæ more or less black, their tarsi fuscous; abdomen yellowish fulvous, first segment except apical margin, black. Length .45 inch.

Hab. Vancouver's Island (H. Edwards).

Lampronota segnis, n. sp.

♂.—Small, black; face, anterior orbits, lower part of cheeks, clypeus, mandibles, palpi, scape beneath, two slender stripes on mesothorax, confluent in front with broad lateral margin, collar, scutellum, large mark on each side of pleura, tegulæ, spot before and one beneath, and four anterior coxæ and trochanters, all yellowish-white; spot on flanks of metathorax, remainder of legs, except tips of tarsi which are dusky, and apical margin of abdominal segments fulvous; wings hyaline, beautifully iridescent, areolet subtriangular, not petiolated. Length .25 inch.

Hab. Vancouver's Island (H. Edwards). A very prettily marked species.

Lampronota hilaris, n. sp.

♀.—Small, black; face and scape beneath fulvous, the orbits slightly interrupted behind summit of eyes and broad beneath, clypeus and spot on mandibles white; mesothorax, scutellum, prothorax, sides of pleura, and flanks of metathorax fulvous; two slender stripes on mesothorax, confluent in front with broad lateral margins, spot on scutellum, collar, margins of prothorax, lower margin of pleura, and tegulæ white; wings hyaline, areolet

small, subpetiolated; legs fulvous, four anterior coxæ white, posterior tibiæ more or less, and tarsi dusky; abdomen subclavate, apical margins of segments pale fulvous, broader on terminal segments; ovipositor as long as the body. Length .25 inch.

Hab. Wilmington, California (Crotch).

Lampronota Edwardsii, n. sp.

♀.—Entirely fulvo-ferruginous; antennæ except scape, spot beneath wings, and lower margin of metathorax black; mesothorax finely punctured; metathorax confluent punctured, with a sinuate carina near apex; wings dark yellow-hyaline, stigma and basal nervures fulvous, areolet subrhomboidal, petiolated; abdomen shining, first segment sparsely punctured; ovipositor as long as the body. Length .50 inch.

Hab. Vancouver's Island (Henry Edwards).

Lampronota? *lugubris*, n. sp.

♀.—Deep black, shining; head small, with flattened cheeks; antennæ long and very slender, third joint very long, and one-third longer than fourth; mesothorax prominently trilobate; metathorax opaque, with four ill-defined longitudinal elevated lines, the two middle ones approximate; wings smoky, nervures and stigma black, no areolet; legs rather slender, ferruginous, coxæ and trochanters black, claws simple; abdomen sessile, depressed, opaque at base, shining at tip, apical margins of third and following segments narrowly dull ferruginous; ovipositor as long as the body. Length .42 inch.

Hab. Lake Quesnel, British Columbia (Crotch).

Phytodietus obscurellus, n. sp.

♀.—Dull black, clothed with a very short, pale, sericeous pubescence; spot beneath eyes, dot on each side of ocelli, short line on each side of base of antennæ, clypeus, mandibles, palpi, lateral anterior margin of mesothorax, tegulæ, dot before and spot beneath white; middle of metathorax longitudinally rugose; wings hyaline, iridescent, stigma black; legs, including coxæ, fulvo-ferruginous, posterior tibiæ towards tip and their tarsi dusky; abdomen shining, apical margin of second and third segments narrowly pale; ovipositor short. Length .30 inch.

Hab. California (H. Edwards).

Phytodictus californicus, n. sp.

♀.—Small, shining black; dot on each side of ocelli, clypeus, mandibles except tips, palpi, tegulae and line in front, white; pleura beneath and flanks of metathorax fulvous; metathorax smooth, with a medial longitudinal groove; wings hyaline, beautifully iridescent, stigma pale; legs, with coxae, pale fulvous, anterior coxae, four anterior trochanters, knees, and apical posterior trochanter white, tips of their tibiae and the tarsi dusky; abdomen shining, apical margin of segments five and six more or less white; ovipositor about half the length of abdomen. Length .21 inch.

Hab. California (Behrens).

Xorides occidentalis, n. sp.

♀.—Black; anterior orbits not reaching summit of eyes, dot on mandibles, palpi, line on each side of collar before anterior coxae, tegulae and spot beneath posterior wings white; scape beneath reddish; middle of mesothorax depressed and transversely wrinkled; metathorax finely transversely sculptured above; wings hyaline, nervures and stigma black; legs, with coxae, fulvo-ferruginous, line on middle tibiae, their tarsi, tips of posterior femora, and their tibiae and tarsi entirely black; abdomen black, immaculate; ovipositor about as long as the body. Length .50-.70 inch.

Hab. Vancouver's Island (H. Edwards).

Poemia insularis, n. sp.

♀.—Black; anterior orbits, broad upper margin of prothorax, tegulae and spot beneath, white; cheeks brown; mesothorax strongly trilobate, the anterior lobe prominent, convex and sparsely punctured, two short pale lines on disk between the wings; apex of scutellum and apex of metathorax dull fulvous; metathorax strongly areolated; wings hyaline; legs, with coxae, fulvous, line on outer side of four anterior coxae white, posterior femora, tibiae and tarsi black; abdomen opaque, middle of third and following segments narrowly white at tip, first and base of second segments finely scabrous; ovipositor as long as the body. Length .55 inch.

Hab. Vancouver's Island (H. Edwards).

Xylonomus californicus, n. sp.

♀.—Uniformly ferruginous; flagellum, except narrow white annulus beyond middle, and sutures of thorax black; sometimes

there is a narrow stripe on anterior lobe of mesothorax, and the sutures between side lobes are black; wings hyaline, stigma black with whitish spot at base; ovipositor longer than body. Length .75-.85 inch.

Hab. California (H. Edwards). Easily distinguished from all the other known species of this genus by the uniform ferruginous color of the body.

Echthrus? maurus, n. sp.

♀.—Robust, black, immaculate; head large, broad, buccate, shining; antennæ with short robust joints, the third much longer than fourth; mesothorax and scutellum shining; metathorax opaque; wings smoky, areolet 5-angular, stigma black; legs sub-robust, tips of four anterior femora and all the tibiæ pale, anterior tibiæ not twisted nor inflated, claws simple; abdomen subfusiform, sessile, first segment rapidly narrowed to base, a deep elongate puncture on apical middle, base of second segment densely and finely sculptured. opaque, remainder of abdomen shining; ovipositor longer than abdomen. Length .50 inch.

Hab. Victoria, Vancouver's Island (Crotch).